

Amendments to the Claims

Listing of Claims:

Claim 1 (previously presented). A method for electrodynamically braking a rail vehicle which is equipped with a drive, comprising regulating the acceleration of the rail vehicle as a function of its velocity, wherein the acceleration is regulated to a set point acceleration which is proportional to the velocity.

Claim 2 (previously presented). The method as claimed in claim 1, wherein the set point acceleration for individual sections is proportional to the velocity.

Claim 3 (currently amended). The method as claimed in claim 1, wherein to control the acceleration indirectly, ~~the~~ a torque of the drive is regulated.

Claim 4 (previously presented). The method as claimed in claim 3, characterized in that a PI controller is used to control the torque.

Claim 5 (previously presented). The method as claimed in claim 3, when the torque is controlled it is kept within predefined limits.

Claim 6 (previously presented). The method as claimed in claim 3, wherein an additional torque which is proportional to the set point acceleration is added to the torque, and a proportionality constant is dependent on vehicle values.

Claim 7 (Original). The method as claimed in claim 6, wherein the vehicle values are

vehicle mass, a transmission ratio and/or diameter of the wheels.

Claim 8 (previously presented). The method as claimed in claim 1, wherein the velocity of the rail' vehicle is determined from rotational speeds of the drive and/or of an axle.

Claim 9 (previously presented). The method as claimed in claim 1, wherein the acceleration is determined as a first derivative of the velocity.

Claim 10 (new). A method for electrodynamically braking a rail vehicle which is equipped with a drive, the method which comprises:

measuring a velocity of the rail vehicle;

upon receiving a braking command, controlling an acceleration of the rail vehicle as a function of the velocity by a closed-loop control process, and thereby regulating the acceleration to a set point acceleration that is proportional to the velocity.

Claim 11 (new). The method as claimed in claim 10, which comprises employing a PI controller for controlling a braking torque.

Claim 12 (new). The method as claimed in claim 11, which comprises maintaining the braking torque within predefined limits.

Claim 13 (new). The method as claimed in claim 11, which comprises adding an additional torque component to the braking torque, the additional torque being proportional to the set point acceleration and a proportionality constant being dependent on vehicle values.

Claim 14 (new). The method as claimed in claim 13, wherein the vehicle values are selected from the group consisting of a vehicle mass, a transmission ratio, and a diameter or diameters of the wheels.

Claim 15 (new). The method as claimed in claim 10, which comprises determining the velocity of the rail vehicle from a rotational speed of the drive and/or of an axle.

Claim 16 (new). A method for electrodynamically braking a rail vehicle which is equipped with a drive, the method which comprises:

measuring a velocity of the rail vehicle;

determining an acceleration of the rail vehicle by forming a first derivative of the velocity;

controlling the acceleration of the rail vehicle by a closed-loop control process to a set point acceleration that is proportional to the velocity.